1029-151 Coronary Stenting in Acute Myocardial Infarction With Cardiogenic Shock

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Background: Cardiogenic shock in acute MI is associated with a high mortality rate even after successful PTCA.

Methods: The purpose of this study was to evaluate the influence of extensive use of coronary stenting (since 01/95) in this setting.

Results: Out of 393 AMI pts admitted within 12 hours after the onset of MI, 51 (12.9%) were in cardiogenic shock. Mean age was 70 ± 13 yrs (31% female). MI was anterior in 69% of cases. IRA was LAD in 51%, left main 16%, RCA 28% and Circ. in 12% of cases. Procedural success was obtained in 90% of cases (stents: 78%, procedural success: 97%) with 34 ± 19 min door to stent time. The in-hospital course was: 1 (2%) repeat PTCA (non-stented pt), 28 (55%) death. In-hospital mortality was influenced by time to admission (≤4 hours: 22% vs >4 hours: 62%, p = 0.069) and by a learning curve effect:

Year of treatment	1995	1996	1997
Pts with shock	13 (19.7%)	19 (10.1%)	19 (13.7%)
Stented pts (%)	53.9	89.5	73.7
Procedural success (%)	83.3	89.5	94.4
Onset to door (min.)	440 ± 247	285 ± 129	367 ± 228
Door to stent (min.)	40 ± 28	37 ± 18	29 ± 12
In-hospital death (%)	61.5	57.9	43.4

Conclusion: Coronary stenting in AMI with cardiogenic shock is associated with a high procedural success rate. Stenting rate as well as procedural duration and success are influenced by a learning curve. Time to admission is the most predictive factor of mortality.

1029-152 Differences in Patients With Acute Myocardial Infarction Treated With Primary Angioplasty or Thrombolytic Therapy?

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Background: Primary angioplasty (PA) is an alternative to thrombolysis (TL) in the treatment of acute myocardial infarction (AMI). However little is known about the differences in clinical practice in patients (pts) with AMI treated with one of the two therapies.

Methods and Results: 5869 pts with AMI were registered by the MITRA study. 477 (8.1%) pts were treated with PA and 2810 (47.9%) pts with TL. Pts treated with PA were younger and had had higher rate of previous MI (19% vs. 15.2%, p = 0.039). Pre-hospital delay time was longer in the PA group (161 vs. 120 minutes, p = 0.001) as well as door to treatment time (85 vs. 30 minutes; p = 0.001). Pts treated with PA received more often β-blockers (64.6% vs. 58.1%, p = 0.008), heparin (98.1% vs. 91.4%, p = 0.001), ACE inhibitors (63.9% vs. 50%, p = 0.001) and the so called "optimal" medication (55.6% vs. 43, p = 0.001). There was a reduction in the incidence of heart failure for pts treated with PA (5.5% vs. 16.4%, p = 0.001), post infarct angina (7.1% vs. 16.3%, p = 0.001) and in-hospital death (8% vs. 11.7%, p = 0.017). However multivariate analysis revealed only "optimal" concomitant medication (OR = 0.77, p = 0.0001), but not the type of revascularization (0.85, p = 0.1013) to be associated with a significant reduction in the death rate.

Conclusions: In clinical practice pts treated with PA receive more often β-blockers and ACE inhibitors, which contribute to a great part to the overall reduction in mortality, overt heart failure and post infarct angina in these pts as compared to pts treated with TL.

1029-153 Early Angioplasty in Acute Myocardial Infarction: Angiographic and Clinical Outcome in 1179 Patients

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Background: Angiographic and clinical outcome in 1179 consecutive patients with acute myocardial infarction (AMI) were analyzed. These patients were all admitted to the University Hospital Maastricht over a 10 year period (1986–1997). Since 1992, apart from patients primarily admitted to this hospital also patients were sent by surrounding hospitals. 487 Patients had rescue angioplasty (RA) and 692 patients had primary angioplasty (PA). Nearly all patients had the intervention within 90 minutes after admission. In patients where thrombolysis was given, rescue PTCA was performed if this therapy did not reperfuse the artery within 60–75 minutes.

Results: Baseline data were comparable between RA and PA. Age of patients increased in time: from 57 years up to 1992 to 61 years since 1992. Patency rates of RA and PA were similar: 88%. Patency increased from 86% initially to 90%, probably due to the use of stents. In-hospital complications were nearly similar for RA and PA with stricking low mortality (3.7%), only re-PTCA was more frequent in RA (11% vs 7%; p = 0.03). One year outcome was good (overall mortality 5.8%). Again, no major differences in long term follow-up were found between RA and PA. Parameters predicting death in the first year after AMI were high age, left main stem occlusion, failed angioplasty and infarct size.

Conclusion: Early angioplasty in AMI resulted in patency rates of 88% and low in-hospital mortality (3.7%). Outcome of RA and PA was comparable in the first year after AMI.

1030 Late Outcomes of Postinfarction Therapies

Monday, March 30, 1998, Noon–2:00 p.m.
Georgia World Congress Center, West Exhibit Hall Level
Presentation Hour: 1:00 p.m.–2:00 p.m.

1030-125 The Influence of Thrombolytic Therapy on the Long-term Predictive Value of Exercise Testing Performed 3 Weeks After Acute Myocardial Infarction

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Background: The usefulness of performing exercise testing (ET) early after acute myocardial infarction (AMI) for predicting the long-term prognosis in patients treated in the thrombolytic era has not been established.

Methods: 446 consecutive patients (pts) discharged from one Coronary Care Unit and eligible for ET 3 weeks post-AMI were evaluated prospectively and followed for 6 years. 263 pts received thrombolysis and 183 did not. The 2 groups were not randomized and had different baseline characteristics.

Results: In patients receiving thrombolysis subsequent cardiac death was related to diabetes but to no ET-related parameter by multivariate analysis. Recurrent AMI could not be related to any parameter studied. Need for revascularization was related to post-infarction angina, use of calcium antagonists and ≥2 mm ST-T segment depression during ET. In patients not receiving thrombolysis, cardiac death was related to reduced left ventricular function at discharge and 2 ET-related parameters: low functional capacity and ≥2 mm ST-T segment depression. Recurrent AMI was not predicted by any variable studied. Need for revascularization was related to low Norris Index, non-smoking status, use of beta-blockers, calcium antagonists and post-infarction angina.

Conclusion: In a population treated by thrombolysis for AMI, ET-parameters measured 3 weeks post-AMI have little value for predicting subsequent clinical events during a 6-years follow-up period. ET-related parameters correlated significantly with the performance of subsequent revascularization procedures. In the population not treated with thrombolysis, ET-derived parameters were significantly correlated with cardiac death but not to recurrent AMI.

1030-126 No Reflow Phenomenon as a Predictor of Complications in the Chronic Stage of Reperfused Acute Myocardial Infarction

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Background: We previously reported that no reflow phenomenon at coronary reflow can discriminate those with poor functional and clinical outcomes during hospitalization from those with favorable outcomes. In this study, we investigated whether this phenomenon can also predict clinical outcomes and LV remodeling in the chronic stage of AMI.

Methods: We performed myocardial contrast echocardiography (MCE) in the 83 patients with an anterior wall AMI after PTCA. We performed 2-D echocardiography at day-1 and 3 months later to determine the end-diastolic LV diameter (LVDd). We also assessed clinical events such as heart failure, malignant arrhythmias, coronary intervention and cardiac death during the follow up period (32.2 ± 16.1 months).

Results: MCE no reflow was observed in 41 patients (Group 1), while the other 42 patients manifested MCE reflow (Group 2). LVDd signicantly increased from day-1 to 3 months later in Group 1 (54 ± 4 to 56 ± 5 mm, $p < 0.05$) but not in Group 2. We observed heart failure in four patients and cardiac death in six patients in Group 1 but in none of Group 2 ($p < 0.05$). There were no differences in the incidence of malignant arrhythmias and coronary intervention between two groups.

MONDAY POSTER